R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

RE: THE SPECIFICATION

The specification has been amended to correct some minor informalities of which the undersigned has become aware, including all of the informalities pointed out by the Examiner. No new matter has been added, and it is respectfully requested that the amendments to the specification be approved and entered, and that the objection to the specification be withdrawn.

RE: THE DRAWINGS

Fig. 10 has been amended to be labeled as "PRIOR ART" as required by the Examiner, and Figs. 4, 8 and 9 have been amended to remove reference numeral "35Aa". In addition, it is noted that the specification has been amended at paragraph [0031] to delete reference numeral "40a" and the specification has been amended at paragraphs [0027] and [0031] to mention reference numeral "40A" shown in Figs. 4-6. Accordingly, it is respectfully submitted that the Examiner's objections to the drawings have been overcome. Submitted herewith are corrected sheets of formal drawing which incorporate the amendments and annotated sheets showing the changes made thereto.

RE: THE CLAIMS

Independent claims 13, 16 and 25 have been amended to recite an additional feature of the present invention whereby the adjusting mechanism does not move/adjust at least a second/end part of a wall section forming said front suction inlet, the second/end part comprising a non-rotatable front end surface of a bumper. See the disclosure in the specification corresponding to the front end surface "Va" of the bumper "V" shown, for example, in Fig. 2.

In addition, independent claims 16 and 25 have also been amended to recite that an opening area of the front suction inlet decreases when the suction inlet unit is pressed against an obstruction as recited in independent claim 13.

Still further, the claims have also been amended to make some minor grammatical improvements and/or to correct some minor antecedent basis problems so as to put them in better form for issuance in a U.S. patent. In particular, it is noted that claims 15 and 20-24 have been amended to change their dependancy so as to provide proper antecedent basis for "said cover."

Yet still further, claims 26-28 have been amended to be rewritten in independent form to include all of the limitations of their respective parent claims 13, 16 and 25, as well as to recite the features of a vacuum cleaner main body having a dust collecting chamber, and a connector which detachably connects the

vacuum cleaner main body to the suction inlet unit. See, for example, Fig. 1 and the disclosure in the specification on page 6.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered, and that the claim objections and the rejection under 35 USC 112 be withdrawn.

RE: CLAIM FEE

The application was originally filed with 16 claims of which 3 were independent. The application now contains 16 claims of which 6 are independent. Accordingly, a claim fee in the amount of $630.00 for the addition of 3 extra independent claims is submitted herewith. In addition, authorization is hereby given to charge any additional fees which may be determined to be required to Account No. 06-1378.

RE: THE PRIOR ART REJECTIONS

Claims 13-28 were all rejected under 35 USC 102 or 35 USC 103 as either being anticipated by one of USP 5,084,934 (“Lessig, III et al”), USP 4,254,525 (“Combest”) and JP 2003-093282 (“Morita et al”), or as being obvious in view of the combination of Morita et al with one or more of USP 4,912,805 (“Krasznai et al”), US 2004/0083574 (“Kobayashi et al”) and USP 2,273,883 (“Norrick”). These

rejections, however, are respectfully traversed with respect to the claims as amended hereinabove.

According to the present invention as recited in amended independent claim 13, a suction inlet unit is provided which comprises a suction inlet main body having a bottom suction inlet, a front suction inlet formed continuously with the bottom suction inlet in a front portion of the suction inlet main body, and an adjusting mechanism for moving at least a first part of a wall section forming the front suction inlet to change an opening area of the front suction inlet. In addition, as recited in amended independent claim 13, the adjusting mechanism decreases the opening area of the front suction inlet when the first part of the wall section is contacted with and pushed by an obstruction, but the adjusting mechanism does not move at least a second part of the wall section, the second part comprising a non-rotatable front end surface of a bumper.

According to the present invention, as recited in amended independent claim 16, a suction inlet unit is provided which comprises a suction inlet main body having a suction chamber with a bottom suction inlet, a rotary cleaning body provided rotating in the suction chamber and having a cleaning member, a front suction inlet formed continuously with the bottom suction inlet in a front portion of the suction inlet main body, and an adjusting mechanism for adjusting at least a first part of a wall

section forming the front suction inlet to control a forward protrusion, through the front suction inlet, of at least a part of the rotary cleaning member. In addition, as recited in amended independent claim 16, an opening area of the front suction inlet decreases and the part of the rotary cleaning member protrudes forward through the front suction inlet when the adjusting mechanism is contacted with and pushed by an obstruction, and as also recited, but the adjusting mechanism does not adjust at least a second part of the wall section, the second part comprising a non-rotatable front end surface of a bumper.

And according to the present invention as recited in amended independent claim 25, a suction inlet unit is provided which comprises a suction inlet main body including a suction chamber having a bottom suction inlet and a front suction inlet formed continuously with the bottom suction inlet, a rotary cleaning body provided rotating in the suction chamber and having a cleaning member, and an adjusting mechanism for adjusting an opening area size of the front suction inlet. In addition, as recited in amended independent claim 25, the adjusting mechanism decreases the opening area of the front suction inlet so that at least a part of the cleaning member of the rotary cleaning body protrudes ahead of the suction inlet main body through the front suction inlet when a front portion of the suction inlet main body

is contacted with and pushed by an obstruction. However, as recited in amended independent claim 25, the adjusting mechanism, when adjusting the opening area, does not adjust at least an end part of a wall section forming the front suction inlet, the end part provided at the front portion of the suction inlet main body and comprising a non-rotatable front end surface of a bumper.

Moreover, amended independent claims 26-28 recite electric vacuum cleaners which comprise the suction inlet units set forth in amended independent claims 13, 16 and 25, respectively.

Thus, significantly, in the suction inlet unit of each of amended independent claims 13, 16 and 25-28 the adjusting mechanism decreases the opening area of the front suction inlet but does not move/adjust a second/end part of the wall section forming the front section inlet when the suction inlet unit is contacted with and pushed by the obstruction. As shown in Fig. 2, for example, the second/end part comprises a front end surface (Va) of a bumper (V) provided in the front portion of the suction inlet unit. And as recited in each of amended independent claims 13, 16 and 25-28, the second/end part is non-rotatable.

With this structure of the claimed present invention, as shown in Figs. 8-9, when the suction inlet unit (30) is advanced forward to press the cover (50; the first part of the wall section) against the wall (K), the cover (50) is rotated by the adjusting mechanism in the clockwise direction of Fig. 8 and the

non-rotatable front end surface (Va) of the bumper (V) comes into contact with the wall (K) to prevent further inward rotation/movement of the cover (50). As a result of the rotation, the opening area of the front suction inlet (46) decreases and a part the longer cleaning members (35A) on the rotating cleaning body (35) protrudes out through the front suction inlet (46) ahead of the cover (50) as shown in Fig. 9.

Since the non-rotatable front end surface (Va) of the bumper (V) is provided in the structure of the suction inlet unit of the claimed present invention, only longer cleaning members (35A), which are flexible, make contact with an inner side of the cover (50) when the cover (50) is pressed by the wall, whereas the shorter cleaning members (35b), which are less flexible, make no contact. As a result, an advantageous effect is achieved by the structure of the suction inlet unit of the claimed present invention whereby since the shorter cleaning members (35b), which are less flexible, do not contact the inner side of the cover (50), weakening of the rotating force of the rotary cleaning body (35) is avoided.

It is respectfully submitted that none of Lessig, III et al, Combest, Morita et al and Norrick disclose, teach or suggest the above described structural features and advantageous effects of the suction inlet unit of the claimed present invention.

In particular, Lessig, III et al teaches a vacuum cleaner having a flexible front wall 28 which extends down in front of the brush 30. According to Lessig, III et al, when the vacuum cleaner is pushed forward against a wall 136, the front wall 28 flexes rearwardly, deforms bristles of the brush 30, and enables the deformed bristles to spring forward beyond the front wall 28 and go to the edge of the carpet 138 when the bristles pass the restraining effect of the front wall 28 (see Fig. 11). However, it is respectfully submitted that Lessig, III et al does not disclose, teach or suggest that the rearward movement of the front wall 28 is stopped by a second/end part of the front wall 28 which comprises a non-rotatable front end surface of a bumper and that the adjusting mechanism does not move the second/end part. And clearly, the advantageous effect of avoiding weakening of the rotating force of a rotary cleaning body by having a non-rotatable front end surface of a bumper in front of the suction inlet unit as according to the claimed present invention is not achieved by Lessig, III et al.

Further, Combest merely teaches an underwater surface vacuum cleaning system 10 having a guide arm 102 upon which pressure is applied to move the cleaning system 10 in a desired direction. According to Combest, movement of the cleaning system 10 underwater causes the wings 70 and 100 to rotate which in turn causes creation of a vortex underneath the cleaning system 10

which aids the brushes 186 in cleansing the submerged surface of a deposited film. However, it is respectfully submitted that Combest does not disclose, teach or suggest that at least a second part of a wall section forming the front suction inlet is not moved and that the second/end part comprises a non-rotatable front end surface of a bumper as according to the claimed present invention. It is respectfully submitted, moreover, that the rollers 55 and 56 provided on the sides of the wing 70 in Combest clearly do not correspond to a non-rotatable front end surface of a bumper as according to the claimed present invention.

Still further, Morita et al discloses a suction nozzle 1 for a vacuum cleaner in which when a covering 24 is pressed against a wall W, the covering rotates upward to expose the rotation brush 22 underneath to get it closer to the wall W for better cleaning. According to Morita et al , the rotation brush 22 can be moved even further to the front to be twisted into the wall W by the bearing 29 and the shaft 27. See Fig. 7. However, it is respectfully submitted that Morita et al does not disclose, teach or suggest the features of the claimed present invention whereby the opening area of the front suction inlet decreases when the suction inlet unit is pressed against the wall and wherein the adjusting mechanism does not move a second/end part of the wall section forming the front suction inlet provided in front of the

suction inlet main body, the second/end part comprising a non-rotatable front end surface of a bumper.

In Morita et al, when the covering 24 is moved out of the way by rotating upwards, an entire surface of the rotation brush 22, including, for example, all cleaning members on the surface, comes into contact with the wall, thereby weakening the rotating force of the rotation brush 22. Clearly therefore, the advantageous effect of avoiding weakening of the rotating force of a rotary cleaning body by having a non-rotatable front end surface of a bumper in front of the suction inlet unit as according to the claimed present invention is not achieved in Morita et al.

Krasznai et al, Kobayashi et al and Norrick, moreover, have merely been cited in connection with features of dependent claims 18 and 21-24.

In view of the foregoing, it is respectfully submitted that the present invention as recited in each of amended independent claims 13, 16 and 25-28 and claims 14-15 and 17-24 respectively depending therefrom clearly patentably distinguishes over the cited references, taken singly or in combination, under 35 USC 102 as well as under 35 USC 103.

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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,

/Douglas Holtz/

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DH:jd

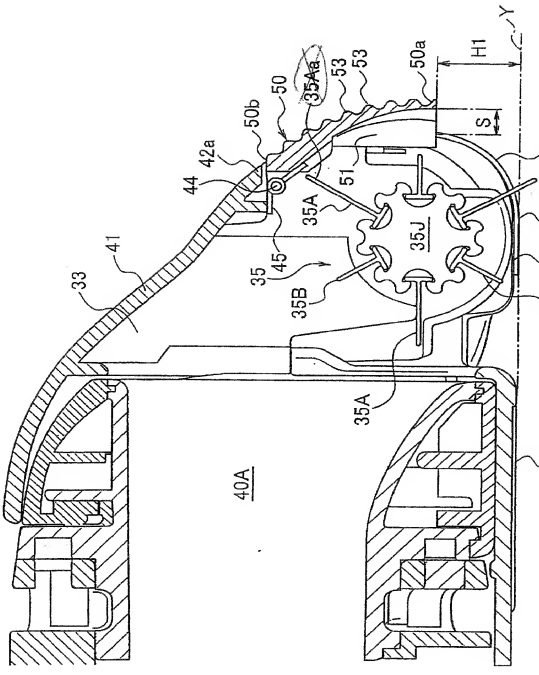
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FIG. 4

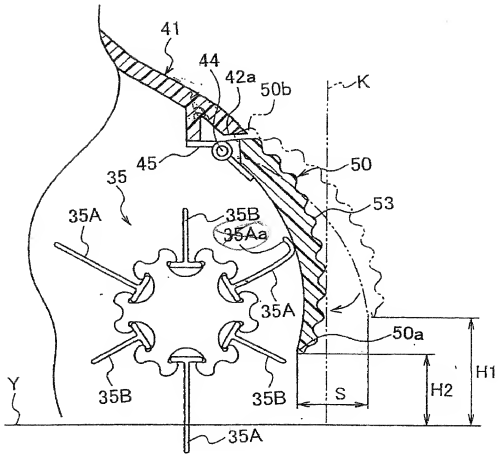
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FIG. 8

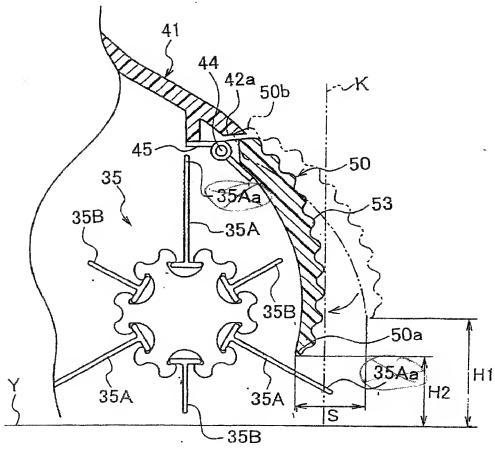
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FIG. 9

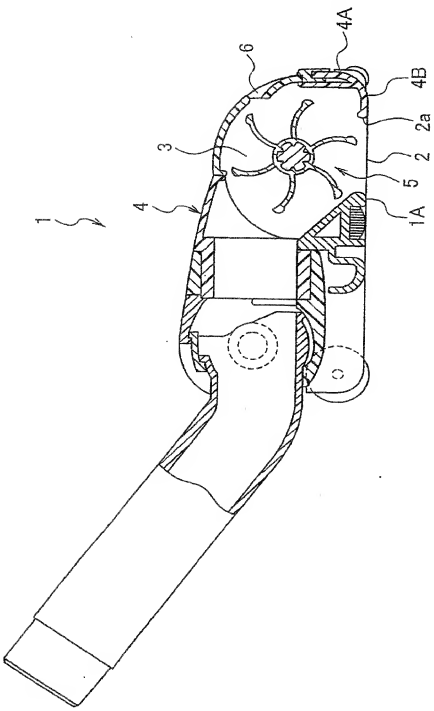

FIG. 10

PRIOR ART